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### SCIENTIFIC NOTE

***Aprostocetus diplosidis*, a Parasite of the Sorghum Midge Found in California (Hymenoptera: Eulophidae).**—*Aprostocetus diplosidis* Crawford, a parasite of the sorghum midge *Contarinia sorghicola* (Coquillett), was first described from material collected near Baton Rouge, Louisiana (Dean, 1911: USDA Bull. 85 (IV): 39-58). Its distribution generally follows that of its host although several years may elapse between the discovery of the midge and the appearance of *A. diplosidis* (Dean, 1911: *Ibid*). *A. diplosidis* was introduced into Texas (San Antonio) in 1908 (Dean, 1910: *J. Econ. Ent.* 3: 205-7) and although it is very aggressive, it appears to have been displaced by another parasite, *Eupelmus popa* Girault (Walter, 1941: USDA Tech. Bull. 778). The latter species has been reported by Woodruff (1929: *J. Econ. Ent.* 22: 160-7) to feed on *A. diplosidis* larvae.

*C. sorghicola* was first recorded in California (Tulare Co.) in 1960 by Lange, Marble, Pendery, Burton (1961: *Calif. Agri.* 15(1): 7-9) but no parasites were found at that time. During field investigations in 1972 I found several small wasps in emergence cages used to determine the midge infestation level in sorghum heads. These were tentatively identified by Dr. R. L. Doutt (Dept. of Entomological Sciences, University of California, Berkeley) as belonging to the genus *Aprostocetus*, "species probably *diplosidis*." Subsequent examination of additional material and reference to Burks' key (1967: *Ann. Ent. Soc. Amer.* 60: 756-60) confirmed that the specimens were *A. diplosidis*. The first individuals emerged 28 Sept., 1972 from sorghum heads collected near Ivanhoe (Tulare Co.) on 11 September. *A. diplosidis* also emerged from sorghum heads collected from two other fields, one in the Ivanhoe area, sampled on 11 Sept., the other 5 miles south-east of Dinuba (Tulare Co.) sampled on 18 September. No *A. diplosidis* emerged from 480 sorghum heads collected from sorghum at the Kearney Horticultural Field Station, Parlier (Fresno Co.), California. Based on emergence data of *C. sorghicola* and *A. diplosidis* in the three fields from which it was collected, the rate of parasitism was < 1%.

During 1973 I surveyed sorghum fields throughout Madera, Fresno, Tulare, Kings, and Kern counties. *A. diplosidis* was found in only two locations, one near Ivanhoe on 25 Sept., adjacent to a field where it was collected in 1972 and a second on 28 Sept. from a sorghum trial at the Kearney Horticultural Field Station. As in 1972, parasitism was < 1%. No specimens of *A. diplosidis* were found during a similar survey in 1974. The present known distribution of *A. diplosidis* in California is shown in Fig. 1.

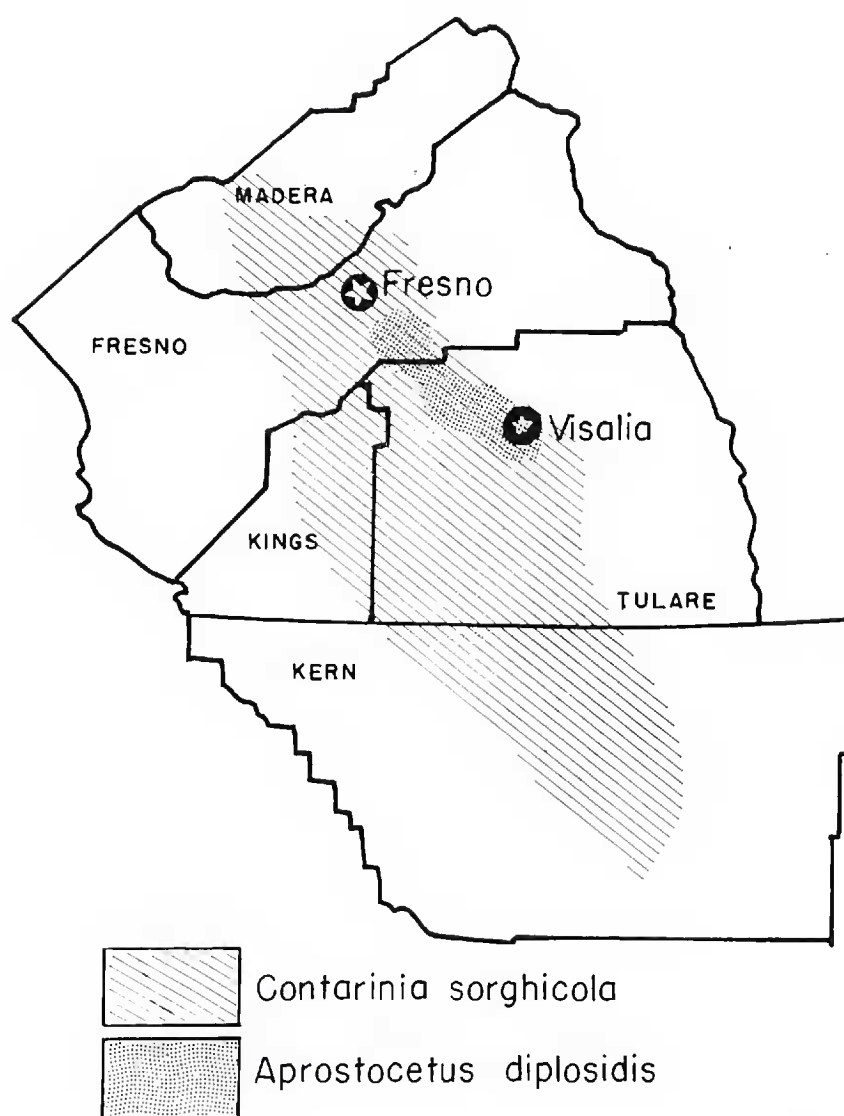


FIG. 1. Distribution of *Aprostocetus diplosidis* in relationship to its host *Contarinia sorghicola* in the southern San Joaquin Valley.

It is not known if the absence of *A. diplosidis* in the 1974 survey indicates that the parasite has failed to become established. Even if *A. diplosidis* becomes established, it is not likely to contribute significantly to the regulation of *C. sorghicola* populations. It does not appear until late in the season (after 11 Sept.) by which time the majority of sorghum midge damage has been done. In other areas of the U.S. where it is established it is not considered to be of major importance in controlling midge populations (Young, 1970: p. 235-87. In Wall and Ross [eds.] Sorghum production and utilization. AVI Publ.).

This report constitutes an extension of the range of *A. diplosidis*, and a new record for California. The previous extent of its westward distribution as listed by Burks (1967: *Loc. cit.*) was Kansas and Texas. *A. americanus* Ashmead is the only other member of the genus reported to occur in California (Burks, 1967: *Ibid.*).

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